

Title (en)
FBDDA AMPLIFIER, DEVICE INCLUDING THE FBDDA AMPLIFIER AND METHOD OF CONTROLLING THE FBDDA AMPLIFIER

Title (de)
FBDDA-VERSTÄRKER, VORRICHTUNG MIT FBDDA-VERSTÄRKER UND VERFAHREN ZUR STEUERUNG DES FBDDA-VERSTÄRKERS

Title (fr)
AMPLIFICATEUR FBDDA, DISPOSITIF COMPRENANT L'AMPLIFICATEUR FBDDA ET PROCÉDÉ DE COMMANDE DE L'AMPLIFICATEUR FBDDA

Publication
EP 3026815 A1 20160601 (EN)

Application
EP 15185543 A 20150916

Priority
IT TO20140987 A 20141128

Abstract (en)
A FBDDA amplifier (10) comprising: a first differential input stage (1a, 1b), which receives an input voltage (V_{in}); a second differential input stage (1c, 1d), which receives a common-mode voltage (V_{CM}); a first resistive-degeneration group (12) coupled to the first differential input; a second resistive-degeneration group (16) coupled to the second differential input; a differential output stage, generating an output voltage; a first switch (14) coupled in parallel to the first resistive-degeneration group (12); and a second switch (18) coupled in parallel to the second resistive-degeneration group (16). The first and second switches (14, 18) are driven into the closed state when the voltage input (V_{in}) assumes a first value such that said first input stage operates in the linear region, and are driven into the open state when the voltage input (V_{in}) assumes a second value, higher than the first value, such that the first input stage operates in a non-linear region.

IPC 8 full level
H03F 3/45 (2006.01); **H03F 1/32** (2006.01)

CPC (source: EP US)
H03F 1/3211 (2013.01 - EP US); **H03F 3/45197** (2013.01 - EP US); **H03F 3/45273** (2013.01 - US); **H03F 3/45708** (2013.01 - EP US); **H03F 2200/261** (2013.01 - EP US); **H03F 2203/45044** (2013.01 - US); **H03F 2203/45101** (2013.01 - EP US); **H03F 2203/45116** (2013.01 - EP US); **H03F 2203/45136** (2013.01 - EP US); **H03F 2203/45151** (2013.01 - EP US); **H03F 2203/45156** (2013.01 - EP US); **H03F 2203/45361** (2013.01 - EP US); **H03F 2203/45492** (2013.01 - EP US); **H03F 2203/45506** (2013.01 - EP US); **H04R 3/00** (2013.01 - EP US); **H04R 19/005** (2013.01 - EP US); **H04R 19/04** (2013.01 - EP US); **H04R 2201/003** (2013.01 - US)

Citation (search report)

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- [A] EP 2128633 A1 20091202 - AUSTRIAMICROSYSTEMS AG [AT]
- [YA] DELIGOZ I ET AL: "A MEMS-Based Power-Scalable Hearing Aid Analog Front End", IEEE TRANSACTIONS ON BIOMEDICAL CIRCUITS AND SYSTEMS, IEEE, US, vol. 5, no. 3, 25 May 2011 (2011-05-25), pages 201 - 213, XP011386711, ISSN: 1932-4545, DOI: 10.1109/TBCAS.2010.2079329

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Designated extension state (EPC)
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DOCDB simple family (publication)
EP 3026815 A1 20160601; **EP 3026815 B1 20191030**; CN 105656432 A 20160608; CN 105656432 B 20190628; CN 110266277 A 20190920; CN 205178992 U 20160420; US 10243520 B2 20190326; US 2016156319 A1 20160602; US 2018062588 A1 20180301; US 9800212 B2 20171024

DOCDB simple family (application)
EP 15185543 A 20150916; CN 201510591951 A 20150916; CN 201520719246 U 20150916; CN 201910486604 A 20150916; US 201514863184 A 20150923; US 201715790518 A 20171023